

Greenville Loop Bridge ~ Capital Project

On June 25, 2004, the City of Wilmington reopened Greenville Loop Road at Riley's Branch, one of the headwaters of Hewletts Creek, which had been closed for a storm water capital improvement project.

The six-month project replaced deteriorated culverts with a 50-foot long bridge, including center turn lanes and expanded shoulder and bike lanes. The project resulted in a long-term solution for the drainage infrastructure and improved flooding issues in this area.

The project has also provided a water quality benefit by allowing increased natural tidal water flow in this area of Hewletts Creek. The project was substantially funded by storm water utility fees.



Before construction



After construction

- PUBLIC SERVICES**
Richard A. King
Director
- STORM WATER SERVICES**
343-4777
David B. Mayes, P.E.
Manager

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Administrative Support
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341-4646
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Drainage Manager
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341-7806



Stormwater Fund FY 03-04

Revenues

Misc. Revenue	4%
City Storm Water Utility Fees	20%
Utility Fees	76%

Expenditures

Storm Water Services Admin.	8%
Non-departmental	10%
Street Sweeping	11%
Capital Projects/Debt Service	26%
Maintenance	45%

Total Budget: \$5,765,595

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STORM WATER WATCH

2004 Fall Annual Report

A Publication of the City of Wilmington's Storm Water Services

Mill Creek Sets "Pawsitive" Example for Apartment Communities



Mill Creek Luxury Apartments, owned by United Dominion Realty Trust, is setting a positive example for Wilmington apartment communities with their efforts toward pet waste management. Located near the intersection of Kerr Avenue and Randall Parkway, Mill Creek is situated next to the City's Storm Water Demonstration Site in Anne McCrary Park. It is also located near the headwaters of Burnt Mill Creek, making them a prime target for storm water pollution prevention. (Burnt Mill Creek is currently listed on the state's 303d list of impaired waters).

For the past two years, Storm Water Services has been raising water quality awareness with selected apartment complexes whose property drains into Burnt Mill Creek. Part of this effort, funded by an Environmental Protection Agency 319 grant, aims to educate apartment residents and property managers on simple ways they can reduce the impacts of storm water pollution on an already stressed creek ecosystem.

Dori Hoover, Community Director of Mill Creek, has specifically recognized the water quality and aesthetic issues associated with pet waste. She has implemented a model policy for pet owners and their best friends that is helping to reduce the impact this pollution is having on Burnt Mill Creek.

Upon arrival, new residents are given an informative letter educating them about the effects that pet waste has on our local waterways. In addition to registering their pet with New Hanover County, each resident is also required to register their pet with Mill Creek and pay a non-refundable pet fee. Mill Creek also expects residents to comply with all county and city pet ordinances, such as the "leash" law.

Mill Creek issues citations and fines to any resident that does not clean up after their pet on Mill Creek property. Groundsmen and residents alike are encouraged to report offenders. Proceeds from the citations are used for installation and maintenance of Mill Creek's pet waste management program.

Hoover states that the apartment community currently has three pet waste stations for their estimated 800 residents, of which 30% own pets. Two additional stations have been ordered and will be installed in the near future. In addition, educational pet waste signage can be seen on the property. Hoover said that she has noticed "drastic improvements" since installing the three stations and signage, and is hopeful that further education, along with the extra facilities, will aid in the continued success of handling pet waste issues.

Hoover says that "gaining funds is not as hard as one may think. A large portion of the cost of purchasing, installing and maintaining pet waste stations is derived from non-refundable pet deposit fees and citation fees."



The City of Wilmington applauds Mill Creek and their residents for their efforts at managing pet waste. They serve as a prime example of how apartment communities can improve local water quality by creating and enforcing a simple and effective pet waste policy. Lastly, Hoover comments, "Pet waste management is an important issue. We owe it to our residents and the community-at-large, to address it accordingly, especially for public health and improved water quality. We also thank Wilmington Storm Water Services for all of their knowledge and support."

Compiled by Cinnamon Williams, 319 grant intern



Mill Creek makes it easy for residents to pick up after their pets by providing pet waste stations on their property. (Above) Renee and Maya, residents of Mill Creek.





www.ci.wilmington.nc.us/pubservices/stormwater/stormwater.htm

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CAPITAL PROJECTS ~ 5-STEP PROCESS ~ WILMINGTON PROJECTS

Storm water runoff is a major cause of property flooding and water quality impairment. To address these issues, Storm Water Services conducts capital improvement projects throughout the City. These projects aim to improve and maintain the storm drainage system, reduce flooding issues and improve water quality. One way to do this is through capital improvement projects. These projects involve 5 major stages from start to finish: planning, design/permitting, easement acquisition, contractor selection/construction, and completion. The status of current storm water capital projects are shown in the 5 stage process below. *See the map below for project locations.*

PLANNING	DESIGN/PERMITTING	EASEMENT ACQUISITION	CONTRACTOR SELECTION/ CONSTRUCTION	COMPLETE
<div>Mineral Springs (A)</div> <div></div>	<div>Dobo (B) <i>(partially funded by the New Hanover Tidal Creeks program through a Clean Water Management Trust Fund grant)</i></div> <div>Heidi Drive (C)</div> <div>Longstreet (D)</div> <div>Market St/Inland Greens (E)</div> <div>Market/Northwoods (F)</div>	<div>Lions Gate/Plaza East (G)</div> <div></div> <div>Riley's Branch (H)</div> <div>Seagate (I)</div>	<div>Marsdens Branch (J)</div> <div>Pine Valley Stream Restoration (K) <i>(partially funded by the NC Ecosystem Enhancement Program)</i></div> <div></div>	<div>Market Street Relief (L) <i>(partially funded by NC Ecosystem Enhancement Program)</i></div> <div></div> <div>Greenville Loop Bridge (M)</div>

Storm Water Utility Maintenance Comparisons
Fiscal Year 1998-99 thru 2003-04

Maintenance Description	Unit	FY 98/99	FY 99/00*	FY 00/01	FY 01/02	FY 02/03	FY 03/04
Clean Structures	Each	11,990	12,143	9,069	6,922	12,919	11,931
Clean Lines	Linear ft.	336,716	406,966	260,231	315,716	241,167	154,511
Cave-in Repair	Each	235	470	497	314	294	280
Structure Repair	Each	105	70	121	118	116	105
Construct Structures	Each	32	4	42	39	26	41
Reset Structure Covers	Each	322	238	198	289	227	257
Replace Structure covers	Each	162	198	192	174	182	150
Ditch Cleaning (hand)	Linear ft.	178,674	2,557,692	307,554	470,683	346,282	349,416
Slope Mowing	Linear ft.	938,379	859,788	502,642	564,023	450,866	528,310
Right-of-Way Mowing	Acres	147	123	175	181	159	194
Culvert Cleaning	Each	383	632	162	757	1,471	814
Sweep Streets	Miles	9,157	11,400	13,310	15,685	13,337	13,670
Street Sweeping Disposal	Truckloads	409	545	773	886	888	961
*Significant increases or decreases in maintenance activities from year-to-year are due to hurricane clean-up activities, differences in rainfall amounts, and storm event response activities.							

Capital Projects Location Map



IN-HOUSE DRAINAGE
IMPROVEMENT PROJECTS

City Storm Water maintenance crews conduct numerous drainage improvement projects throughout the City on a regular basis. These projects consist of installing new pipes, culverts, manholes, and road repair and are an essential element in maintaining the storm drainage system.

PROJECT LOCATION	COST \$\$\$
23rd Street & Shirley Road	4,519.76
Masonboro Sound Road	10,960.57
Godwin Field	4,174.79
Jeb Stuart Drive (2 locations)	5607.37
Dogwood Lane	1,038.15
Cardinal Drive	14,021.57
Sabra Drive	4,567.74
John S. Mosby Drive	12,650.61
Lynette Drive	4,190.44
Haig Drive	5,495.55
Tanbridge Road	1,601.35
Colony Circle North	18,453.79
George Trask Drive	1,151.86
Upper Reach Drive	1,246.05
South Live Oak Parkway	2,233.58
Airlie Brook Drive	1,054.71
Delaney Avenue	15,348.76
Windemere Road	1,215.84
Arden Road	11,669.05
Bragg Drive (3 locations)	23,432.99
Chalmers Drive (3 locations)	19,387.61
Kirby Smith Dr. (2 locations)	2,278.58
Gillette Drive	22,250.08
Echo Farms Blvd.	3,866.36
Peachtree Avenue	836.47
Appleton Way (2 locations)	7511.10
Pine Street (in alley)	2,547.68
TOTAL	\$203,312.41